

What is claimed is:

1. A method of controlling operation of an ultraviolet air treatment device including an ultraviolet lamp positioned to treat air within a duct of an air handling system operational in an on state or an off state, the method comprising:
 - a. activating the ultraviolet lamp;
 - b. determining the operational state of the air handling system; and
 - c. deactivating the ultraviolet lamp upon expiration of a predetermined time period during which the air handling system remains in the off state.
2. The method of claim 1, wherein the predetermined time period is in the range of 30-60 minutes.
3. The method of claim 2, wherein the predetermined time period is 40 minutes.
4. The method of claim 1, further comprising:
initiating a lamp overrun sequence following step b, the lamp overrun sequence including continually monitoring the operational state of the air handling system during the predetermined time period, wherein the ultraviolet lamp remains activated during the lamp overrun sequence.
5. The method of claim 1, wherein determining the operational state includes receiving the information indicative of an operational state of the air handling system.
6. The method of claim 5, wherein receiving information indicative of an operational state includes:
sensing the presence of airflow within the duct

7. The method of claim 6, wherein sensing the presence of airflow includes:
positioning a sensor within the duct, the sensor configured to provide a
signal indicative of airflow;
electrically connecting the sensor to a control unit otherwise controlling
activation of the ultraviolet lamp; and
monitoring signals from the sensor.
8. The method of claim 7, wherein the sensor includes a heated component
adapted to be cooled when subjected to airflow.
9. The method of claim 5, wherein receiving information indicative of an
operational state includes:
monitoring a signal from a fan associated with the air handling system.
10. The method of claim 5, wherein receiving information indicative of an
operational state includes:
monitoring a signal from a thermostat associated with the air handling
system.
11. The method of claim 1, further comprising:
 - d. re-activating the ultraviolet lamp after step c upon determining
that the air handling system has returned to the on state.
12. The method of claim 1, further comprising:
storing a lamp replacement value;
accumulating data during activation of the ultraviolet lamp, the data
being related to the lamp replacement value; and
providing a warning signal when the accumulated data approaches the
lamp replacement value.

13. A control system for controlling operation of an ultraviolet air treatment device including an ultraviolet lamp positioned to treat air within a duct of an air handling system operational in an on state or an off state, the control system comprising:

an activation device electrically connected to, and adapted to control activation of, the ultraviolet lamp; and

a controller electrically connected to the activation device and adapted to:

store a predetermined time period value,

prompt the activation device to activate the ultraviolet lamp,

receive information indicative of an operational state of the air handling system,

determine whether the air handling system is in the off state or the on state based upon the received information,

prompt the activation device to deactivate the ultraviolet lamp when the air handling system remains in the off state for an entirety of the predetermined time period.

14. The control system of claim 13, wherein the predetermined time period value is in the range of 30-60 minutes.

15. The control system of claim 14, wherein the predetermined time period value is 40 minutes.

16. The control system of claim 13, wherein the controller is further adapted to initiate a lamp overrun sequence upon determining that the air handling system has switched to the off state, the lamp overrun sequence including continually monitoring the operational state of the air handling system during the predetermined time period, and further wherein the controller is adapted to maintain activation of the ultraviolet lamp during the lamp overrun sequence.

17. The control system of claim 13, further comprising:
a sensor electrically connected to the controller, the sensor adapted to
signal information indicative of the operational state of the air
handling system.
18. The control system of claim 17, wherein the sensor is an airflow sensor
positionable within the duct.
19. An ultraviolet air treatment system for treating air within a duct of an air
handling system otherwise operational in an on state or an off state, the air
treatment system comprising:
an ultraviolet lamp positionable within the duct;
an activation device electrically connected to the ultraviolet lamp for
controlling activation of the ultraviolet lamp; and
a controller electrically connected to the activation device and adapted to:
store a predetermined time period value,
prompt the activation device to activate the ultraviolet lamp,
receive information indicative of an operational state of the air
handling system,
determine whether the air handling system is in the off state or the
on state based up on the received information,
prompt the activation device to deactivate the ultraviolet lamp
when the air handling system remains in the off state for
an entirety of the predetermined time.
20. The system of claim 19, wherein the predetermined time period value is
in the range of 30-60 minutes.
21. The system of claim 20, wherein the predetermined time period value is
40 minutes.

22. The system of claim 19, further comprising:
a sensor electrically connected to the controller, the sensor adapted to
signal information indicative of the operational state of the air
handling system.
23. The system of claim 19, further comprising:
a control unit connected to the controller via a communication bus, the
control unit adapted to signal information indicative of the
operational state of the air handling system.